Claims

The invention claimed is:

Claim 1. A method for detecting the quick restart of liveness daemons in a distributed, multinode data processing system in which nodes communicate liveness indicia in the form of heartbeat signals via adapters coupled to each node, said method comprising the steps of:

sending, from a first node to other nodes that are not in the sender's membership group, a first message which includes at least indicia of occurrence of a quick restart; and

determining, from said indicia of occurence of said quick restart and from locally stored group membership information, the existence of a quick restart at said first node, and responding thereto by sending a second message which indicates that said first node is to be expelled from the group.

Claim 2. The method of claim 1 in which said second message is sent by the node that is the downstream neighbor, in terms of heartbeat passing signals, of the node that sent the first message.

Claim 3. The method of claim 1 in which said quick restart indicia are selected from the group consisting of: (1) an indication that sender and receiver are not in the same adapter membership group; (2) an indication that the sender's address is part of the current adapter membership group according to said receiver; and (3) an indication of difference in instantiation number for the sender's adapter.

Claim 4. A multinode data processing system comprising:

a plurality of data processing nodes connected in a network capable of transmitting messages between nodes;

storage means within said nodes containing program code for sending, from a first node to other nodes that are not in the sender's membership group a first message which includes at least indicia of occurrence of a quick restart and for determining, from said indicia of occurrence of said quick restart and from group membership information in storage at at least one recipient node, the existence of said quick restart at said first node, and responding thereto by sending a second message which indicates that said first node is to be expelled from the group.

Claim 5. A machine readable medium containing program code for use in a multinode data processing system for sending, from a first node to other nodes that are not in the sender's membership group a first message which includes at least indicia of occurrence of a quick restart and for determining, from said indicia of occurrence of said quick restart and from group membership information in storage at at least one recipient node, the existence of a quick restart at said first node, and responding thereto by sending a second message which indicates that said first node is to be expelled from the group